

Remarks/Arguments

Reconsideration of this application is requested.

Specification

The Action objects to the title as not being descriptive. The title is amended to be clearly indicative of the invention to which the claims are directed.

Claim Status

Claims 6-15 were previously pending in this application. By this amendment, claim 6 is amended and claim 11 is canceled, without prejudice. Accordingly, after entry of this amendment, claims 6-10 and 12-15 are pending.

Claim Rejections -35 USC 102

Claims 6-9, 11 and 13-15 are rejected under 35 USC 102(b) as being anticipated by U.S. patent 5,567,648 to Gupta. Applicant respectfully traverses these rejections and has amended independent claim 6 to clarify its distinctions relative to Gupta. In view of the amendment to claim 6, claim 11 has been canceled.

Claim 6, as amended, requires:

“forming one or more conductive members electrically connecting the terminals to each other, *thereby short-circuiting the terminals so that voltage is not applied to the semiconductor chip package*”; and

“disabling the electrical connections *by an action of mounting the package on a printed circuit board, wherein the electrical connections are melted by a heat of soldering the terminals so that operation of the semiconductor chip package is not obstructed*”.

Gupta, conversely, discloses a method for forming interconnect bumps 50 on bond pads 42 by arranging a perform sheet 30, comprised of discs 36 and ligaments 32, on a substrate 40 and then heating the perform sheet 30 by methods such as a reflow furnace or a hot-plate (col. 2, lines 28-40). This is not a method, as claimed by applicant, wherein:

(a) the terminals are first short-circuited, in order to avoid electrostatic damage to the semiconductor chip; and

(b) the electrical connections are then disabled during the mounting of the package on a circuit board by melting caused by soldering heat, so that operation of the semiconductor chip is not obstructed.

Gupta does not raise the issue of damage by electrostatic discharge, and certainly does not disclose applicant's two step process of dealing with this issue, wherein the terminals are first short-circuited to prevent damage to the chip, and wherein connections between the terminals are *melted by the heat of soldering while the package is being mounted on a circuit board* in order to prevent obstruction of chip operation. Gupta, rather, simply discloses the formation of interconnect bumps on bonding pads via use of a reflow furnace or hot-plate.

Since Gupta does not disclose each and every element of claim 6, and claims 7-9, and 13-15 dependent thereon, it cannot anticipate those claims. The rejections should be withdrawn.

Claim Rejections – 35 USC 103

Claim 10 is rejected under 35 USC 103(a) as obvious over Gupta in view of U.S. patent 5,546,297 to Duley. Claim 12 is rejected under 35 USC 103(a) as obvious over Gupta in view of U.S. patent 4,735,847 to Fujiwara et al. Duley is cited for its disclosure of sockets, pins and pads. Fujiwara is cited for its teaching of forming a conductive thin film. Neither of the references remedies the deficiencies of Gupta discussed above with reference to claim 6. Since claims 10 and 12 depend from claim 6, the rejections should be withdrawn.

Conclusion

This application is now believed to be in form for allowance. The examiner is invited to telephone the undersigned to resolve any issues that remain after entry of this amendment. Any fees due in connection with this response may be charged to our Deposit Account No. 50-1314.

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Respectfully submitted,
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